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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,652	02/28/2002	Timothy D. Wilkinson	124-930	3971
23117	7590	03/07/2005		
NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714			EXAMINER PHAN, THANH S	
			ART UNIT 2841	PAPER NUMBER

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/084,652

Applicant(s)

WILKINSON ET AL

Examiner

Thanh S Phan

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11/19/04.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 28-34 is/are rejected.
- 7) ☐ Claim(s) 22-27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-21 and 28-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee [US 5,838,414] in view of Levine et al. [US 5,902,165].

Regarding claims 1-6, Lee discloses a semiconductor back plane [figure 1] comprising an array of electronic elements [6] comprising at least a first and second electronic element layers [8, 22] and at least one separate spacer [18] which rises higher over the back plane [2] than the array [6] and a second spacer layer [10].

Lee discloses the instant claimed invention except for the first and second spacer layer being comprise of substantially the same material as the electronic layers.

Levine et al. disclose a plurality of spacers [125] having the same material as the electronic layers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the spacer design of Levine et al. with Lee to facilitate manufacture.

Regarding claims 7-8, Lee discloses a plurality of spacers regularly distributed over the backplane [figures 3-5].

Regarding claims 9-10, Lee discloses the array providing a plurality of addressable locations with each location having a spacer associated therewith [figure 2].

Regarding claims 11-12, Lee disclose the instant claimed invention except for the specific shape of the spacers.

The specific shape of the spacers would have been dictated by the particular backplane configuration and is considered to be obvious to the ordinary practitioner.

Regarding claim 13-15, Levine et al. discloses an insulating layer [32] having a general constant thickness extending over at least one layer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the insulating layer of Levine et al. in Lee for the purpose of protecting the electronic layer.

Regarding claims 16-20 and 32-34, Lee discloses a reflective electrode [4] mounted on the insulating layer.

Regarding claim 21, Lee discloses the claimed invention except for at least some of the spacers being disposed externally of the array. Lee teaches that it is known to alternating the arrangement of the spacers as set forth at column 6, lines 47-59. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have the spacers disposed externally of the array to achieve a desired spacers pattern.

Regarding claims 28-31, the claimed method steps are necessitated by the product structure.

***Allowable Subject Matter***

Claims 22-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments with respect to claims 1-34 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh S Phan whose telephone number is 571-272-2109. The examiner can normally be reached on M-F 9:00-5:00.

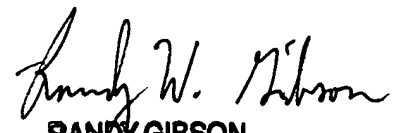
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tsp

  
**RANDY GIBSON**  
**PRIMARY EXAMINER**